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CLAIMS

I CLAIM:

1. A self starting permanent magnet motor, comprising
a stator; and
a rotor journaled within said stator for rotation about an axis, said rotor

including

a body of ferromagnetic material located on said axis and having
a nominally cylindrical peripheral surface concentric with said axis;

permanent magnets located on said peripheral surface defining
"n" equally angularly spaced magnetic poles with alternating ones of said
poles being of opposite polarity and "n" being an even integer of at least
2; and

a thin, hollow conducting cylinder disposed on said body
sandwiching said magnets against said peripheral surface, said hollow
cylinder being formed of good electrically conducting material.

2. The motor of claim 1 further including sealing end pieces at opposite
ends of said body and a second hollow cylinder sealed to both said end pieces.

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3. The motor of claim 2 wherein said second hollow cylinder and both said
2 end pieces are formed of corrosion resistant material.

4. The motor of claim 1 wherein said hollow conducting cylinder is formed
2 of copper.

5. The motor of claim 1 wherein the sides of said poles are circumferentially
2 spaced from one another, and spaces therebetween are filled with rotor forming material.

6. The motor of claim 5 wherein said rotor forming material is part of said
body.

7. The motor of claim 5 wherein said rotor forming material is a potting
2 compound.

8. The motor of claim 5 wherein conducting bars are located in axial slots
or grooves in said rotor forming material and connected at either end to a conducting
ring.

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9. The motor of claim 1 wherein each of said magnets is made of plural pieces, each in turn having a flat surface, and said peripheral surface has a plurality of flats against respective ones of which the plural pieces are abutted.

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10. A self starting permanent magnet motor, comprising
a stator; and
a rotor journalled within said stator for rotation about an axis, said rotor including
a body of ferromagnetic material having a generally cylindrical peripheral surface concentric with said axis;
permanent magnets located on said peripheral surface defining
“n” equally angularly spaced magnetic poles with alternating ones of said poles being of opposite polarity and “n” being an even integer of at least 2; and
a thin, hollow, electrically conducting cylinder disposed on said body sandwiching said magnets against said peripheral surface.